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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,760	12/03/2003	Thomas Korner	DKT02164	4211

7590

08/04/2004

Borg Warner Inc.
Patent Department
Powertrain Technical Center
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Auburn Hills, MI 48326-1782

EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,760	Applicant(s) KORNER, THOMAS	
	Examiner Thai-Ba Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Preliminary Amendment filed on December 03, 2003 is acknowledged. Claims 1-10 were amended, and claims 11-12 were added.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Benefit

Applicant is required to insert the following paragraph on Page 1, after the title of "Housing for a Turbocharger":

The present application claims priority of Patent Document No. 02 026 895.9 filed in Europe on December 03, 2002, the disclosure of which is expressly incorporated by reference herein.

Information Disclosure Statement

The listing of references in the specification (See Paragraph [0002], lines 2-3; and Paragraph [0024], lines 19-20) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

The disclosure is objected to because of the following informalities:

1. Applicant should elect only one of the following terms to describe the element **"3"** in order to maintain the consistency of the whole specification:

- **"T-shaped exhaust gas pipe pieces 3"** (See Paragraph [0011], lines 3 and 6-7; paragraph [0012], lines 6-7).
- **"parts 3"** (See Paragraph [0011], line 3; and Paragraph [0012], line 2).
- **"individual parts 3, 4"** (See Paragraph [0011], line 13).
- **"individual sections 3, 4"** (See Paragraph [0011], line 15).

2. Applicant should elect only one of the following terms to describe the element **"4"** in order to maintain the consistency of the whole specification:

- **"manifold piece 4"** (See Paragraph [0011], lines 4-5, 11; paragraph [0012], lines 8-9 and 15; Paragraph [0015], line 5; Paragraph [0020], lines 2, 6 and 14; and etc...).
- **"individual parts 3, 4"** (See Paragraph [0011], line 13).
- **"individual sections 3, 4"** (See Paragraph [0011], line 15).

3. Applicant should elect only one of the following terms to describe the element **"21"** in order to maintain the consistency of the whole specification:

- ***“supply channel 21”*** (See Paragraph [0014], line 25; and Paragraph [0020], line 1).
- ***“exhaust gas supply channel 21 ”*** (See Paragraph [0015], line 4).
- ***“discharge channel 21”*** (See Paragraph [0018], line 3).

4. Applicant should elect only one of the following terms to describe the element ***“ 4’ ”*** in order to maintain the consistency of the whole specification and claims:

- ***“branch pipe 4’ ”*** (See Paragraph [0020], line 2).
- ***“connection conduit 4’ ”*** (See Paragraph [0015], lines 2, 5, 13-14; Paragraph [0021], lines 13-14; and Paragraph [0022], lines 12-13, 19, and 25; and etc...).
- ***“smaller connection pipe 4’ ”*** (See Paragraph [0027], lines 3-4).
- ***“connection pipe means”*** (See Claim 1, lines 7 and 11; Claim 2, line 3; Claim 5, lines 7 and 10; and Claims 10, lines 7-8).
- ***“tubular connection element 4’ ”*** (See Claim 4, lines 8-9).

Appropriate correction is required.

Claim Objections

Claims 7-8 are objected to because of the following informalities:

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- In claim 7, line 4, "**a distance of at least...**" should be replaced by -- **a distance between said two layers of metal sheet being of at least...**-- (for clarifying the distance of which element(s).

- In claim 8, lines 3-4 should be replaced by following:

-- wherein the inner, [[resp.]] **respective** one of the [[inner]] sheet metal layers [[[6] of the metal sheet layers (6, 22)]] -- (for avoiding the redundancy).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and its dependent claims 11-12; claim 5; and claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically,

1. In claim 4, lines 5 and 8, "the recitation of ***"in particular"*** renders the claim indefinite, since it is not clear that how particular the housing jacket and the tubular connection element are to be described by the applicant.

2. In claim 5, lines 5-7, "the recitation of ***"in particular"*** renders the claim indefinite, since it is not clear that how particular the housing jacket and the connection pipe means are to be described by the applicant.

Additionally, in lines 8-10, the recitation of ***“preferably the inner surface of the cylindrical portion abutting onto the outer surface of the connection pipe means”*** renders the claim indefinite, since it is not clear that under which condition the inner surface of the cylindrical portion **is preferred** to abutting onto the outer surface of the connection pipe means; and under which condition the inner surface of the cylindrical portion **is not preferred** to abutting onto the outer surface of the connection pipe means. Applicant should define or clarify the preferable condition for abutting the inner surface of the cylindrical portion onto the outer surface of the connection pipe means.

3. In claim 6, lines 5-6, the recitation of ***“preferably the outer one being thicker than the inner one”*** renders the claim indefinite, since it is not clear that under which condition the outer one **is preferred** to being thicker than the inner one; and under which condition the outer one **is preferred** to being thinner than the inner one. Applicant should define or clarify the preferable condition for the outer layer being compared to the inner layer. Applicant should define or clarify the preferable condition.

Additionally, in line 6, the recitation of ***“in particular”*** renders the claim indefinite, since it is not clear that why the outer layer being thicker than the inner layer in a particular range of 1.5 to 3 times thicker.

4. In claim 7, lines 5-6, the recitation of ***“preferably... and in particular ...”*** renders the claim indefinite, since it is not clear that under which condition the distance is preferred to being 8 mm, and under which condition the distance is not equal to 8mm, and why the distance is in a particular range between 2 and 5 mm. Applicant should define or clarify the preferable condition.

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5. In claim 8, line 3, the recitation of **"resp."** renders the claim indefinite, since it is not clear that what does it means. Applicant is required to fully spell out this term.

6. In claim 9, in line 5, the recitation of **"preferably"** renders the claim indefinite, since it is not clear that under which condition the insulation layer is preferred to being made of a textile tissue, and under which condition the insulation layer is not made of textile tissue.

In lines 6-7, the phrase **"such as"** renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Additionally, in line 8, the recitation of **"in particular"** renders the claim indefinite, since it is not clear that how particular a sheet metal layer.

7. In claim 10, line 6, the recitation of **"preferably"** renders the claim indefinite, since it is not clear that under which condition an intake gas channel of the housing wall and said connection pipe means are made lengthwise in two parts and respectively in one piece with the corresponding spiral portion, and under which condition an intake gas channel of the housing wall and said connection pipe means are not made lengthwise. Applicant should define or clarify the preferable condition.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kirchweger et al. (Patent Number 4,194,484).

Kirchweger discloses a housing for a turbocharger comprising:

a rotor space (not shown) for receiving and accommodating a turbine rotor (8), said rotor space (Not shown) being surrounded by a housing jacket (9) which at least partially made of sheet metal (See Figures 1-2, and Column 1, lines 40-57);

connection pipe means (Not Numbered) for connecting to at least one exhaust gas manifold (7) of a combustion motor (1);

wherein the housing jacket (9) of the rotor space (Not shown) and at least the connection pipe means (Not Numbered) for connection with the exhaust manifold (7) are made of sheet metal, and wherein the exhaust gas manifold (7) is in thermal connection with said housing jacket (9) (See Figures 1-2, and Column 1, lines 40-57).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchweger et al. (Patent Number 4,194,484), in view of Stratton et al. (Patent Number 4,192,122), and further in view of Chen et al. (Pub. Number US 2004/0142152 A1).

Kirchweger discloses the invention as recited above; however, Kirchweger fails to disclose a collector tube element being inserted into the exhaust gas manifold; and the collector tube element and an exhaust gas elbow pipe being made of stamped sheet metal.

Stratton teaches that it is conventional in the insulated exhaust manifold art, to utilize a collector tube element being inserted into the exhaust gas manifold (See Figures 1-3, Column 2, lines 56-68, and Column 3, lines 1-6).

Additionally, Chen teaches that it is conventional in the heat shield art for offering the thermal insulation and reduced noise for vehicle, to utilize the collector tube element and an exhaust gas elbow pipe being made of stamped sheet metal (See Figures 1-3, and Paragraph [0024]).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a collector tube element being inserted into the exhaust gas manifold, as taught by Stratton; and stamped sheet metal, as taught by Chen, to improve the protective structures, in the Kirchweger device.

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Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchweger et al. (Patent Number 4,194,484), in view of Stratton et al. (Patent Number 4,192,122).

Kirchweger discloses the invention as recited above; however, Kirchweger fails to disclose at least partially realized by a sliding connection.

Stratton teaches that it is conventional in the insulated exhaust manifold art, to utilize at least partially realized by a sliding connection (See Figures 1-3, Column 2, lines 56-68, and Column 3, lines 1-6).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized at least partially realized by a sliding connection, as taught by Stratton, to improve the protective structures, in the Kirchweger device.

Claims 4-6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchweger et al. (Patent Number 4,194,484), in view of the admitted prior art of Manfred et al. (Patent Number DE 100 22 052 A1).

Kirchweger discloses the invention as recited above; however, Kirchweger fails to disclose the detailed structure and the location of said heat conductive connection; the thickness of the inner and outer layers; and two mutually complementary spiral portions being connected to each other by welding.

Manfred teaches that it is conventional in the turbocharger art, to utilize said heat conductive connection comprising a conically widening portion (10) one of the tubular elements, in particular of the housing jacket (22, 23, 62, 63) advantageously followed by

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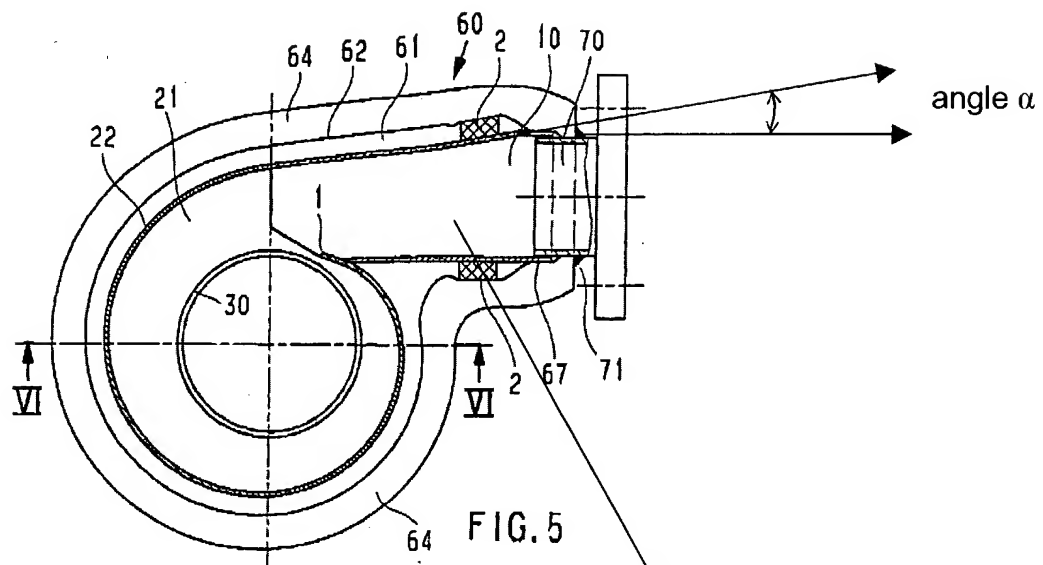
a cylindrical portion into which the tubular end of the respective other element, the tubular connection element (70), inserted, the conically widened portion advantageously having an angle (α) of at most 30° , of at most 20° , and at least 7° and whereby the inner surface the cylindrical portion abuts onto the outer surface of the connection pipe means (See attached Figures 2, 5, and 11; Column 4, lines 52-58, and Column 5, lines 32-36); and

said heat conducting connection comprising a cylindrical portion (See attached Figure 5) of one of the tubular elements, the housing jacket (22, 23, 62, 63) into which the tubular end of the respective other tubular element, the connection pipe means (70), is insertable, wherein the inner surface of the cylindrical portion abuts onto the outer surface of the connection pipe means (70) (See attached Figures 2, 5, and 11; Column 4, lines 52-58, and Column 5, lines 32-36);

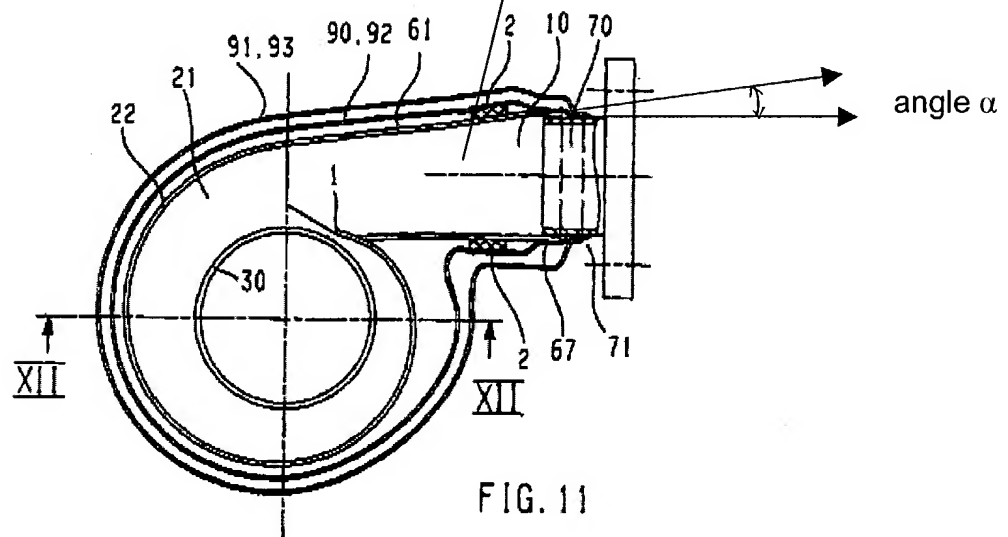
said housing jacket (22, 23, 62, 63) consisting at least two layers of metal sheet arranged one on top of the other, whereof preferably the outer one (60, 62, 63) is thicker than the inner one (22, 23) (See attached Figure 5); and

two mutually complementary spiral portions being connected to each other by welding (See Figures 5 and 11, Column 2, lines 34-39).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the detailed structure and the location of said heat conductive connection, the thickness of the inner and outer layers, and two mutually complementary spiral portions being connected to each other by welding, as taught by Manfred, to improve the efficiency and the longevity of the Kirchweger device.



Conically widened portion



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Not that from the Figures 5 and 11 of Manfred, the angle (α) is to be in the range of at most 30° , of at most 20° , and at least 7° , as applicant claims in claims 4, and 11-12.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchweger et al. (Patent Number 4,194,484), in view of the admitted prior art of Manfred et al. (Patent Number DE 100 22 052 A1), and further in view of Stratton et al. (Patent Number 4,182,122).

The modified Kirchweger device discloses the invention as recited above; however, fails to disclose the distance between the two layers of metal sheet being 1mm, 8 mm, and in the range from 2 to 5 mm.

Stratton teaches that it is conventional in the insulated exhaust manifold art, to utilize the insulation member having the thickness of 1mm to 5mm fitted to the distance between the two layers of the metal sheet (See Figure 1, Column 4, lines 14-18).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the distance between the two layers of metal sheet being 1mm, 8 mm, and in the range from 2 to 5 mm, as taught by Stratton, to improve the efficiency, in the modified Kirchweger device.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchweger et al. (Patent Number 4,194,484), in view of Stratton et al. (Patent

Number 4,192,122), and further in view of Manfred et al. (Patent Number DE 100 22 052 A1).

The modified Kirchweger discloses the invention as recited above; however, fails disclose the inner one of the sheet metal layers being arranged one on top of the other, forming a sliding connection, whereas in the respective outermost layer of elements, the respective parts being welded together.

Manfred teaches that it is conventional in the turbocharger art, to utilize the inner one of the sheet metal layers being arranged one on top of the other, forming a sliding connection, whereas in the respective outermost layer of elements, the respective parts being welded together (See Figures 5 and 11, Column 2, lines 34-39).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the inner one of the sheet metal layers being arranged one on top of the other, forming a sliding connection, whereas in the respective outermost layer of elements, the respective parts being welded together, as taught by Manfred, since the use thereof would have improved the structural protection of the modified Kirchweger device.

Additionally, the recitation of "the respective parts being welded together", being considered as a product by process claim, which is rejected over a prior art product that appears to be identical, although produced by a different process, the burden is upon the applicants to overcome forward with evidence establishing a obvious difference between the two. See *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983).

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Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchweger et al. (Patent Number 4,194,484), in view of Kohl et al. (Patent Number DE 33 34 413 A1).

Kirchweger discloses the invention as recited above; however, Kirchweger fails to disclose an insulation layer being made of textile tissue, a woven or knitted tissue.

Kohl teaches that it is conventional in the exhaust manifold art of the internal combustion engine, to utilize an insulation layer being made of textile tissue, a woven or knitted tissue (See Figure, and Abstract).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized an insulation layer being made of textile tissue, a woven or knitted tissue, as taught by Kohl, to improve the performance efficiency of the Kirchweger device.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wolf et al. (US Patent Number 5,816,043) disclose shield encompassing a hot pipe.
- Merkle et al. (US Patent Number 3,948,052) disclose an installation of an exhaust gas turbocharged internal combustion engine.
- Oetliker (US Patent Number 3,310,940) discloses gas turbine.
- McClure (US Patent Number 2,529,880) discloses a turbo-expander.

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- Czaby et al. (Patent Number DE 38 15 406 A1) disclose an exhaust device for internal combustion engine.
- Wirth (Patent Number WO 97/48943 A1) discloses Insulation for structural components having three-dimensional external surfaces.
- Yoshikawa et al. (Patent Number JP 05 240193 A) disclose noise-reducing device for fluid equipment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

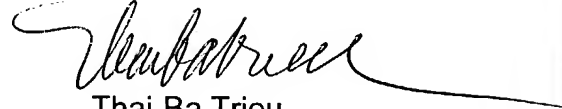
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB
July 28, 2004



Thai-Ba Trieu
Patent Examiner
Art Unit 3748